

Notice of Allowability

Application No.

10/690,137

Examiner

Daniel Kim

Applicant(s)

ASHER ET AL.

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/27/07.
2. ☒ The allowed claim(s) is/are 1-9, 13-15 and 19-24 (renumbered as 1-18).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


STEPHEN C. ELMORE
PRIMARY EXAMINER

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance:

In independent claims 1, 13, 19 and 24 directed towards an apparatus including a novel architecture for set associative cache and a method of absorbing defects in a set associative cache, the following features taken in combination with the remaining limitations in the independent claims are not found in and/or are not obvious in view of the prior art of record:

Claim 1, *"access control logic which manages access to the cache and is coupled to said plurality of ways, the access control logic being physically closer to the first way than to the other ways of the plurality of ways" and "wherein the access control logic controls the mux in a bank to remap any defective way in a bank to the first way in that same bank"*.

Claim 13, *"wherein each bank includes a first way that has a physical path to said access control logic that is shorter than the respective physical paths from the other ways of the bank to said access control logic" and "wherein the access control logic controls the mux in a bank to remap any defective way in that bank to the first way in that same bank"*.

Claim 19, *"wherein a first way in each bank has a faster access time than the access time of the other ways of the plurality of ways in each bank" and "using the mux in a bank to remap any defective way in a bank to the first way in that same bank"*.

Claim 24, *"wherein each bank includes a first way segment that has a physical path to said access control logic that is shorter than the respective physical paths from*


the other ways of the bank to said access control logic" and "wherein the access control logic controls the mux in a given bank to remap any defective way segment in that bank to the first way segment in that same bank".

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Contact Information

3. Any inquiries concerning this action or earlier actions from the examiner should be directed to Daniel Kim, reachable at 571-272-2742, on Mon-Fri from 10:00am-6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah, is also reachable at 571-272-4098.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information from published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. All questions regarding access to the Private PAIR system should be directed to the Electronic Business Center (EBC), reachable at 866-217-9197.


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12-14-07